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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/829,476	04/22/2004	Yoshihisa Nagano	740819-1052	5876

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NIXON PEABODY, LLP
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EXAMINER

WILSON, SCOTT R

ART UNIT	PAPER NUMBER
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2826

MAIL DATE	DELIVERY MODE
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11/02/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/829,476

Applicant(s)

NAGANO ET AL.

Examiner

Scott R. Wilson

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 July 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 April 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION***Response to Arguments***

Applicant's arguments filed 7/6/2007 have been fully considered but they are not persuasive. As to the rejection of claims 1-7 based upon a defective reissue oath under 35 U.S.C. 251, it remains unclear exactly why the language at issue constitutes an error. The oath merely states the language should be removed, implying that the error was the original inclusion of the language. Why the original inclusion of the language constitutes an error is unknown. Given that the claims are read in light of the specification, it is clear from applicants figures what the language "an edge portion of the capacitor upper electrode" refers to. There is no teaching in which the portion of the capacitor upper electrode that extends beyond the capacitor lower electrode is formed on anything other than the protective insulating film. More detailed claim language, such as for example "the upper electrode with lateral extent greater than the lower electrode and with at least a portion of the non-overlapping portions formed at the same level as the lower electrode, on the protective insulating film" would have been desirable, but the current claim language is sufficient.

As to the 35 U.S.C. 103(a) rejection over Izumi et al. in view of Evans, Jr., applicant states that "it is noted that this reference (Izumi et al.) relates to a general DRAM and no where disclose or suggest a semiconductor device having a ferroelectric capacitor". The limitation of a ferroelectric capacitor does not appear in independent claim 1, only that of a metal oxide capacitor. Applicants also states that "Izumi et al. fails to disclose or remotely suggest first and second contact plugs." Izumi et al., Figure 9, does, in fact, teach first and second contact plugs. The first contact plug is the material formed between the impurity diffusion layer (2) and a point midway to the top of the capacitor lower electrode. Since the claim has no limitation as to the dimension of the contact plug, a portion of the thickness of the lower capacitor electrode is within the scope of being a contact plug. Likewise, the second contact plug is the material formed between the impurity diffusion layer (25) and a point midway to boundary between the wiring layer (11) and the inter-layer insulating film (14).

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Applicant states that the patent to Izumi et al. fails to disclose a hydrogen barrier film entirely covering the capacitor upper electrode. As noted in the rejection, this is true, which is why the grounds of rejection are on Izumi et al in view of Evans, Jr.. Applicant notes that Evans fails to teach a second contact plug providing a connection between the impurity diffusion region and the capacitor upper electrode. However, the only feature of Evans relied on in the grounds of rejection is the hydrogen barrier film. Izumi et al. teaches the first and second contact plugs, as described above.

Reissue Applications

The reissue oath/declaration filed with this application is defective because it fails to identify at least one error which is relied upon to support the reissue application. See 37 CFR 1.175(a)(1) and MPEP § 1414. The reason why the deletions of claim 1 correct an error or errors is unclear.

Claims 1-7 rejected as being based upon a defective reissue oath under 35 U.S.C. 251 as set forth above. See 37 CFR 1.175.

The nature of the defect(s) in the declaration is set forth in the discussion above in this Office action.

In addition, the declaration states that "If the reissue is a broadening reissue, such must be stated with an explanation as to the nature of the broadening." The deletions of claim 1, allegedly to correct errors, are broadened claims, however, there is no required statement.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Scott R. Wilson whose telephone number is 571-272-1925. The examiner can normally be reached on M-F 8:30 - 4:30 Eastern.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sue Purvis can be reached on 571-272-1236. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

srw


SUE A. PURVIS
SUPERVISORY PATENT EXAMINER